

## REMARKS

### Rejections under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-6 and 9-20 under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,662,722 (“Shiban”) in view of U.S. patent number 2,651,381 (“Cooper”) or U.S. patent number 3,146,072 (“Morgan”); and rejected claims 1-6 and 9-20 under 35 U.S.C. section 103(a) as being unpatentable over 5,397,552 to Weigold et al in view of U.S. Patent No. 3,617,382 to Natsis et al. Applicants respectfully traverse.

The independent claims of the present recite a “baffle...having a section which is tapered to bifurcate the stream of air passing over said baffle and wherein said baffle is angled toward said inlet...” (emphasis added). The art cited does not teach a tapered baffle for bifurcating gas flow, and angled baffles.

The independent claims of the present invention recite limitations for a structure having both tapered baffles and baffles which are angled toward an inlet. The references cited do not teach or fairly suggest tapered baffles. A non-limiting example of tapered baffles is illustrated in the application as filed in figure 2.2. Figure 2.2 illustrates that the flow of air is allowed to move through the holes of the baffle, or to the left, or right top portions of the baffle. As depicted in Figure 2 reference character 70 indicates the tapered baffle, wherein the baffle forces an unmixed stream of air 60 to pass either through a set of holes 72, over the right side of a tapered section of a tapered baffle 80, or over the left side of a tapered section of a tapered baffle 80. Accordingly, as depicted in the non-limiting example of Figure 2, a tapered baffle of the present invention is structurally different than the baffles cited.

Weigold teaches a reactor sleeve having a baffle centrally positioned, which is “designed to force gases to flow centrally.” Accordingly, as illustrated by Figure 15 of Weigold, gas flowing through the reactor sleeve is forced through a central aperture 282. The Applicant submits that a tapered baffle, which bifurcates the stream of air passing over the baffle is structurally different from a single hole in the center of a donut shaped baffle and produces significant mixing advantages over the prior art. Accordingly, while Weigold’s disclosure teaches the use of a centrally located hole in a donut shaped baffle for the direction of air. Weigold fails to teach a tapered baffle capable of bifurcating the stream of air passing over said baffle.

The combination of Weigold and Natsis fail to teach or fairly suggest all of the claim limitations included in the independent claims of the parent application and therefore fails to establish a prima facie case of obviousness. Accordingly, applicants request that the rejection be withdrawn and the applicant be placed in condition for allowance. Natsis teaches a structure which comprises a plurality of baffles which subject fluid flowing there through to intensive mixing. It is important to note that the baffle system as disclosed in Natsis does not comprise, teach, or fairly suggest the use of a tapered baffle which bifurcates the flow of air. Instead, Natsis discloses a plurality non tapered baffles. Natsis's baffles comprise a single opening directing the flow of fluid through a series of baffles, or effectively through winding tube.

The combination of Shibani with Cooper or Morgan fails to fairly teach or suggest all of the claim limitations included in the independent claims and therefore fails to render the present claims obvious. Shibani discloses enhanced mixing of gas through an array of baffled plates and a multitude of openings. However, Shibani does not disclose the tapered baffle which is also angled toward the inlet of the air stream flow. Cooper discloses an exhaust muffler with perforated baffles which appear in the figures to be angled towards the inlet flow. However, Cooper does not disclose a tapered baffle which bifurcates the flow of air. Morgan likewise illustrates baffles angled towards an inlet, but also fails to teach or fairly suggest a tapered baffle as recited in the claims of the present invention and is illustrated in the non-limiting example found in figure 2.2 of the present application.


Accordingly, applicant asserts that the proposed combination of Shibani with Cooper or Morgan fails to teach or fairly suggests all the claims limitations recited in the independent claims and therefore fails to establish a proposed case of obviousness. Applicants requested that rejection be withdrawn and the application be placed in condition allowance.

### CONCLUSION

Applicants submit that the amendments made herein do not add new matter and that the claims are now in condition for allowance. Accordingly, Applicants request favorable reconsideration. If the Examiner has any questions or concerns regarding this communication, the Examiner is invited to call the undersigned.

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Respectfully submitted,



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